Manual
CombiMaster CM

RATIONAL®

Safety Instructions

Warning:
Incorrect installation, adjustment, servicing, maintenance, cleaning, or unatmorised modifications to the appliance can result in damage, injury or death. Read the Operating Manual carefully before starting to use the appliance.

For your safety:
Do not store or use any flammable gases or liquids near this appliance.

What to do in the event of danger or if you smell gas:
- Turn off the gas supply immediately
- Do not touch any electric control elements
- Make sure the area is well ventilated
- Avoid naked flames or sparking
- Use an external telephone to notify the appropriate gas supplier immediately (if the gas supplier is unavailable call the relevant fire station).

„RESET" (gas appliances only)
If the burner malfunctions "rES" will light up on the display. An acoustic signal will sound after 15 sec. Press the Reset button to re-start the automatic ignition process.
If the "rES" display does not light up again after approx. 15 sec. the flame is burning and the appliance is operational. Please notify Customer Support if the display is still lit after repeated pressing.

Dear Customer

You have a 12 month warranty from the date of first use of your machine.

The warranty excludes glass damage, light bulbs and gasket material as well as damage caused by improper use, maintenance, repair or scaling of components.

Your
RATIONAL AG

Dealer	**Installer**
	Installed on

Our Technical Customer Support Service can be reached 7 days a week on: +49 8191 327333.
For any queries relating to use please ring the RATIONAL ChefLine®: +49 8191 327300.

We reserve the right to make technical improvements!

Dear Customer

Congratulations on the purchase of your new CombiMaster.

Your decision to buy a new CombiMaster means that you now have a top-of-the-range Combi Steamer.

Your CombiMaster will give you many years of reliable service thanks to its outstanding quality of finish and almost unlimited cooking potential.

In order to make the best use of your CombiMaster's wide variety of possible applications and benefits we recommend that you study the Manual carefully.

And now enjoy your new CombiMaster.

For any cooking queries dial your local telephone number on the last page of this Manual.

You can reach our technical Customer Support Service 7 days a week on +49 8191 327333.

Your
RATIONAL AG

Table of contents

Info

General instructions / For your safety	6
Features	10
Controls	11
Cooking techniques	12
Control modes	13
Moist Heat Mode	14
Dry Heat Mode	16
Combi-Steam Mode	19
Vario-Steam Mode	21
Finishing®Mode	23
Working with the core temperature probe	2
Cool Down Function	28
Cleaning	29
Servicing –steam generator descaling	31
Appliance settings – Celsius / Fahrenheit	36
Maintenance	37
Maintenance – draining the steam generator	38
Appliance options	39
Fault indications	41
Sample applications	42

General Instructions / For your Safety

General Instructions / For your Safety

Keep this manual carefully so that it can always be consulted by anyone using the appliance.

This appliance must only be used to cook food in catering establishments. Any other use does not conform to the use intended and is therefore considered dangerous

Operate using hands only. Damage caused by the use of pointed, sharp or other objects will invalidate the warranty.

The appliance must only be operated by specially trained operators.

It is vital for the owner to give users regular safety instruction.

We recommend that the owner gives your staff regular training to preclude the risk of accidents or of damage to the appliance.

Daily checks before switching on

- Lock air baffle top and bottom.
- Ensure that grid shelf or mobile oven rack is properly locked into position in the cooking cabinet.

General

- The temperature of door glass, outer casing and add-ons can rise to over 60 °C
- Avoid having heat sources (e.g. grill plates, deep fat fryers etc.) near the appliance.
- If the unit is idle for prolonged periods, shut the water supply stop valve and turn off the appliance energy supply (gas and electricity) at the mains.

When setting up table-top units with an original standard stand or base cabinet the maximum working height at the top rack is is not exeed 1600 mm.

WARNING – If containers are filled with liquid or contents which liquefy during cooking, do not use higher level racks than those where the user can see into the slide-in containers. Warning sticker enclosed with appliance

Caution!

- **Hot vapour (risk of scalding)!**
- **Containers and grids are hot!**
- **Make sure the mobile oven rack is correctly locked in place!**

Gas appliances only

- If your appliance is installed below an extractor hood, this must be switched on when the appliance is operating
- If your appliance is connected to a chimney, the flue duct must be cleaned as stipulated in specific regional regulations. Consult your installer.
- Do not put objects on your appliance exhaust pipes
- The appliance must only be used in drauctur free conditions
- Do not let objects block or obstruct the area below the appliance.
- It may be necessary to have a flue gas interlokking system connected to the appliance, consult your installer.

Loading/removing

Open appliance door slowly. .

When it is opened the heating and fan wheel shut down automatically.

The integral fan wheel brake is activated. The fan wheel runs on briefly.

Do not touch the fan wheel

Do not insert containers or grids until the grid shelf has been properly secured and the mobile oven rack has been pushed up to the stop and locked into place.

Only use genuine heatproof accessories made by the appliance manufacturer.

Appliances with grid shelves (6x1/1 GN, 6x2/1 GN, 10x1/1 GN, 10x2/1 GN)

Removal

Slightly raise grid shelf and lift out of front catch. Swivel grid shelf to middle of cooking cabinet.

Press grid shelf upwards, lift from fixings. Slot into place in reverse order.

Mobile oven racks

Working with mobile oven racks / mobile plate racks and transport trolleys

using table-top units (option)

- Remove grid shelf
- Lay run-in rail on appliance floor and engage.

- Push in mobile oven rack or mobile plate rack
- Push in mobile oven rack or plate rack up to the stop and lock into place
- Transport trolleys must be properly fixed to the appliance using the holder
- Disengage mobile oven rack or plate rack and pull out
- When transporting the mobile oven rack or plate rack on the transport trolley make sure trolley is engaged in the transport safety catch
- Cover and secure containers with liquids so that there is no risk of scalding from liquid slopping over.

Warning!

- **Shut GN-container locks on mobile oven rack!**
- **Mobile oven racks, mobile plate racks, transport trolleys and appliances on casters can tip over when being moved over an inclined plane or threshold.**

Appliance size	Max. load size
6x1/1 GN	30 kg (max. 15 kg per rack)
10x1/1 GN	45 kg (max. 15 kg per rack)
20x1/1 GN	90 kg (max. 15 kg per rack)
6x2/1 GN	60 kg (max. 30 kg per rack)
10x2/1 GN	90 kg (max. 30 kg per rack)
20x2/1 GN	180 kg (max. 30 kg per rack)

Low water

The indication H2O may appear on the display when you switch on. This means that the steam generator is not yet filled with water. When it is full the display goes off automatically.

- If the display is still lit, check that the water valve is open and the strainer at the water supply (solenoid valve) is not blocked

Ambient temperatures

If ambient temperatures drop below +5 °C, make sure the cooking cabinet is heated to room temperature (> + 5 °C) before starting to use it.

Core temperature probe

- The core temperature probe may be hot – use oven gloves..
- Cool core temperature probe with cold water before use
- Do not let core temperature probe hang out of the cooking cabinet.
- Remove core temperature probe before unloading the food.

Cool Down

Use "Cool Down" function to cool the cabinet.

Caution!

- **During "Cool down" the fan wheel is running when the door is open!**
- **Do not switch on "Cool down" function unless air baffle is correctly locked**
- **Do not touch the fan wheel.**
- **Appliance must not be cooled with cold water.**

Hand shower (optional)

Pull hand shower out to use

Press hand shower control button to select 2 regulation rates.

Hand shower retracts automatically

Make sure the hand shower is fully rewound after use.

Caution

- **Hand shower and hand shower water may be hot!**

General Instructions / For your Safety

Cleaning

- Leave the appliance door slightly open if it is going to be idle for a prolonged period (e.g. overnight).
- Do not clean unit with high-pressure cleaner
- Do not treat unit with acids or expose to acid fumes – this will damage the protective layer of stainless steel and units might discolour.
- Follow the instructions on the cleaner pack.
- For cleaning sequence see "Manual Cleaning " chapters.
- Only use cleaning agents made by the appliance manufacturer.

Caution!

- **Wear proper protective clothing, gloves, goggles and mask.**

Descaling

- Note that the steam generator must be descaled as required (see Descaling chapter).

Caution!

- **Aggressive chemical fluid - corrosive!**
- **To prevent damage to materials and health it is vital that you use:**
  Schutzkleidung
  protective clothing
  safety goggles
  protective gloves
  face mask
  the manufacturer's descaling accessories

Maintenance

- Inspection, maintenance and repair work must only be carried out by trained technicians.
- The unit must be switched off at the mains when cleaning, carrying out inspection, maintenance or repair work.
- If the appliance is installed on casters, freedom of movement must be restricted so that electrical cable, water and drainage gas pipes cannot be damaged when the unit is moved. If the unit is moved make sure that electrical cable, water and drainage gas pipes are disconnected correctly. If the unit is returned to its original position, make sure that the retention device, electrical cable, water and drainage gas pipes are correctly fitted

Servicing

- To ensure that your appliance stays in perfect working order it should be serviced at least once a year by an authorised service partner..

Info

Features

① **Appliance serial number**
(visible only when door is open)

② **Draft diverter** (optional)
(gas appliances only)

③ **Interior lighting**

④ **Appliance door with double glass pane**

⑤ **Door handle**
Table-top units: one-handed operation with slam function

Floor models: one-handed operation

⑥ **Unlocking device to open double glass door panel** (inside)

⑦ **Integral, self-draining door drip pan (inside)**

⑧ **Drip collector connected directly to appliance drain**

⑨ **Appliance feet**
(height adjustable)

⑩ **Unit data plate**
(with all the important electrical data such as power input, voltage, number of phases and frequency, as well as appliance model and appliance serial number, see also functions/settings/model)

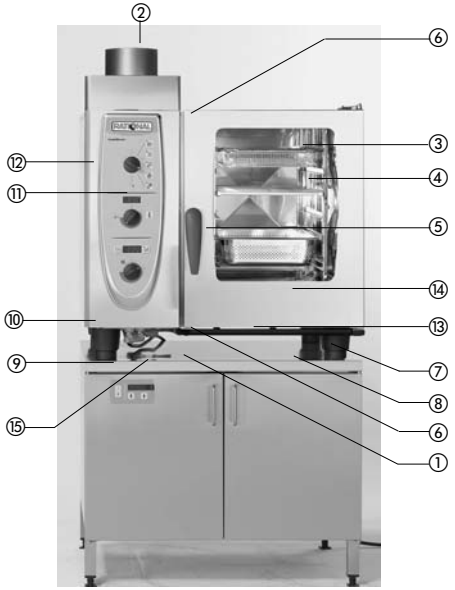
⑪ **Control panel**

⑫ **Protective cover for electrical installation area**

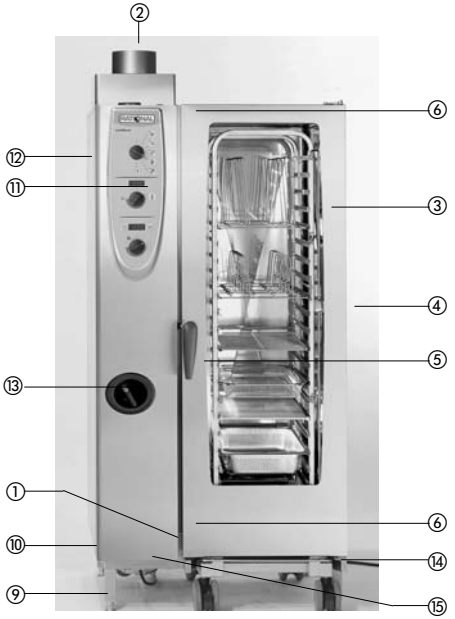
⑬ **Hand shower** (optional)
(with automatic rewind)

⑭ **Run-in guide**
(Floor models)

⑮ **Air filter**
(Installation area ventilation)

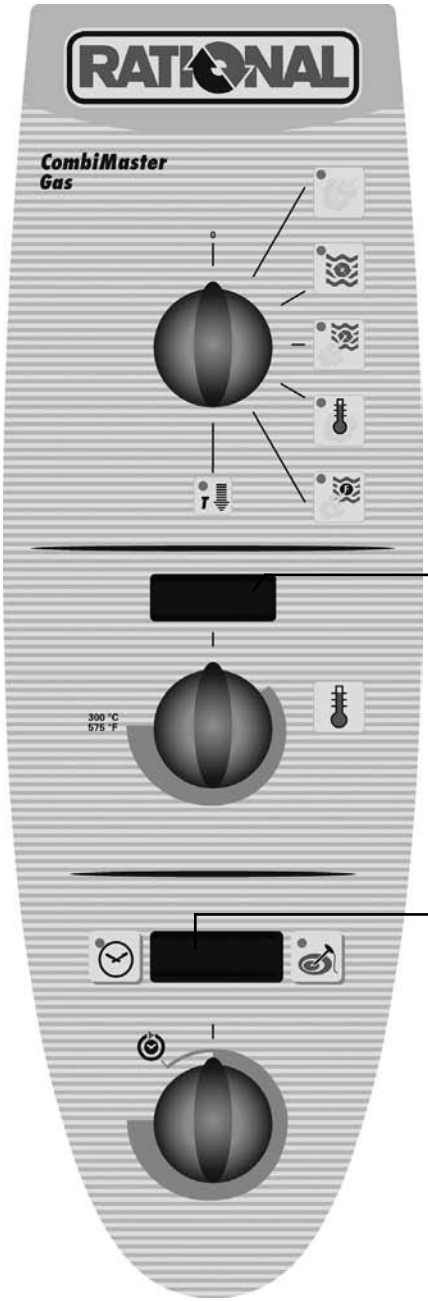


CM 6 x 1/1 GN, identical for 10 x 1/1 GN, 6 x 2/1 and 10x2/1 GN



CM 20 x 1/1 GN, identical for 20 x 2/1 GN.

Controls



Moist Heat (100 °C).

Dry Heat (30 °C to 300 °C).

Combi-Steam (30 °C to 300 °C).

Control Mode switch

Vario-Steam (30 °C to 99 °C)

Finishing (30 °C - 300 °C)

Additional "Cool Down" function

Cabinet temperature display

Cabinet temperature dial

Heating mode display

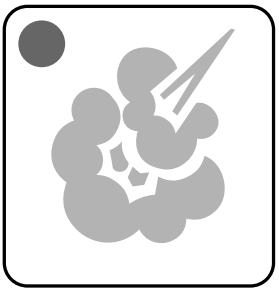
Clock button (0 to 120 min.).

Button for core temperature (20 °C -99°C)

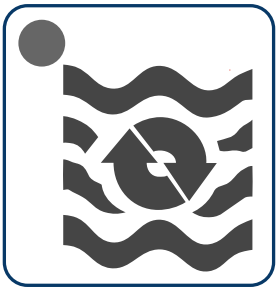
Display for time/core temperature

Dial for time of day/core temperature

Cooking techniques



Moist Heat



Dry heat

These two modes can be used either

- **individually**
  or
- **in combination**

Combi-Steam

Your appliance allows you to use virtually all the traditional cooking processes in just one cooker!

Control modes

"Moist Heat" mode

The high-performance steam generator produces fresh steam. This is fed, unpressurised, into the cooking cabinet and is circulated at high speed by the fan. The patented control system regulates the input of steam, supplying only as much as the food is actually able to absorb. In this mode cabinet temperature is set to a constant 100 °C.

"Dry Heat" mode

Powerful heating elements heat the dry air. The fan circulates the hot air evenly throughout the cabinet. Cabinet temperature can be set to between 30 °C and 300 °C.

"Combi-Steam" mode

Moist Heat and Dry Heat modes are combined by a control system. This creates a hot, humid climate for especially intensive cooking. The temperature can be set to between 30 °C and 300 °C.
The humidity is controlled continually to prevent the food drying out.

"Vario-Steam" mode

An electronic control system with temperature sensors accurate to one degree maintains the preselected temperature throughout the cabinet. Sensitive controls and automatic control engineering ensure that the cooking climate is just right for the product. The cabinet temperature can be variably set to between 30 °C and 99 °C.

"Finishing®" mode

A combination of Moist Heat and Dry Heat modes. This produces the ideal cooking climate, by preventing the food drying out and also the formation of unwanted puddles. Cabinet temperature can be individually set to between 30° C and 300 °C.

Moist Heat mode

"Moist Heat"

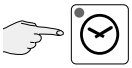
The steam generator produces hygienic fresh steam. In this mode the cabinet temperature is set to a constant **100 °C**.

Cooking modes:
Steaming, stewing, blanching, poaching, simmering, vacuum cooking, thawing, preserving.

1

Preheat until heating indicator light goes out

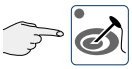
2



3

Or work with the core temperature probe

2



3

Target **Actual**

Sample dishes

- **Mise en place**
  Tomatoes concassé, garnishes (vegetables, fruit), mushrooms, blanching juliennes and brunoises, blanching vegetables for stuffings, roulades etc., peeling onions and chestnuts, soaking pulses.

- **Starters**
  Scrambled eggs, poached eggs, hard-boiled eggs, asparagus, vegetable flans, stuffed vegetables (onions, kohlrabi, leeks, celery, etc.).

- **Soup garnishes**
  Dumplings, ravioli, vegetable royale

- **Main courses**
  Boiled beef, cured ham, knuckle of pork, tongue, boiling fowl, turkey legs, meat in aspic, fish.

- **Side dishes**
  Risotto/rice, dumplings, pasta (noodles), fresh and frozen vegetables, vegetable casseroles, potato roulade, boiled/jacket potatoes.

- **Desserts**
  Fresh or frozen fruit (e.g. hot raspberries), stewed fruit, rice pudding.

Moist Heat mode

Hints

- To get the most out of your Combi-Master check daily the types of food which can be **cooked together using** "Moist Heat". Remember that fish, meat, vegetables, side dishes and fruit can be cooked together (as long as they are all being prepared by the same method).

- Cook **potatoes** in perforated GN containers, the perforations let the steam circulate and give faster, more intensive cooking.

- **Vegetable stock** can be collected by inserting a container on the bottom rack.

- It is better to use two shallower GN containers rather than one high one => this **reduces bulk** and avoids heavy layers of food.

- **Dumplings** should be placed in a shallow solid GN container.

- **Rice and cereals** are the only foods to which you should add water: 1 part grain, 1.5 to 2 parts water.

- **Tomatoes** are easy to skin: "Moist Heat" for approx. 1 min, then plunge into cold water.

Dry Heat mode

"Dry Heat"

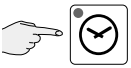
Powerful heating elements heat the dry air. Cabinet temperature can be set to between **30 °C and 300 °C.**

Cooking methods:
Baking, roasting, grilling, deep-frying, gratinating, glazing.

1

Preheat until heating indicator light goes out.

2

3 

4

Or work with the core temperature probe

3

4

Target **Actual**

Sample dishes

- **Mise en place**
  Sweating bacon, roasting bones, allowing dough (yeast) to rise.

- **Starters**
  Meatballs, vegetarian bakes, vegetables au gratin, vegetable pasties, pies, sirloin, chicken wings, finger food, duck breasts, quiches, shortcrust pastry, tartlets.

- **Soup garnishes**
  Savoury straws, cheese croûtons.

- **Main courses**
  Steak, rump steak, T-bone steak, liver, rissoles, chicken breast, chicken legs, half / whole chickens, turkey, pheasant, quail, breadcrumbed meat, breaded convenience food, vegetarian cutlets, duck breasts, cutlets, pizza.

- **Side dishes**
  Potato pancakes, roast potatoes, potato gratin, rösti, baked potatoes, Idaho potatoes, potato soufflés, Macaire potatoes, duchesse potatoes.

- **Desserts**
  Sponges, marble cakes, plain cakes, fancy cakes, flaky pastry, croissants, bread, rolls, baguettes, shortcrust pastry, apple strudel, bakery products (precooked), frozen pastry.

Dry Heat mode

Hints

- **Cooking times**
  Cooking times will depend on product quality, weight and height. Do not overload grids or containers so that air can circulate evenly.

- **General notes on pan-frying**
  - **Preheat** to as high a temperature as possible (300 °C) to build up sufficient stored heat.
  - Load as quickly as possible in order to minimise cabinet temperature drop.
  - **During cooking** (with a full load) open the door briefly to allow excess moisture to escape.
  - With flash-fried and fried products which give off a lot of moisture (e.g. chicken legs), if possible reduce loads to 75 or up to a maximum of 50% of the greatest theoretical load.

- **Breaded products**
  all types of breadcrumb coating can be used. Browning is improved by brushing with fat or a blend of paprika and oil. Press the breadcrumbs in firmly, brush with melted fat and do not overload the unit.
  Rule of thumb: allow approx. 8 to 10 minutes per 1cm thickness of meat

  Preheat: to 300 °C (at least until heating indicator light goes out).

  Optimum cut thickness: 1,5 to 2 cm.

  Accessories: grids for even browning top and bottom, ensure that cuts are of the same thikkness and that similar sizes are placed on the same granite enamelled container.

- **Gratinating**
  light and dark meat dishes, fish, mussels, asparagus, chicory, broccoli, fennel, tomatoes, toast.

  Preheat: to 300 °C (at least until heating indicator light goes out). Set to desired temperature after loading.

  E.G.: Grids or containers (20 mm) for gratinating toast, steaks and soups.

- **Preparing fish**
  Flour and add fat.

Dry Heat mode

- **Baking**

  Preheat to baking temperature. For a full load you may need to select a higher preheating temperature.
  Baking temperature: approx. 20 to 25 °C lower than in a conventional oven.
  For rolls use only every second shelf.

For frozen convenience products preheat to 300 °C.

Defrost frozen rolls and leave to rise for a short time.

Accessories:

Use perforated Teflon-coated baking trays, baking and roasting trays or granite enamelled GN containers.

Combi-Steam mode

"Combi-Steaming"

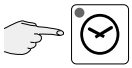
Moist Heat and Dry Heat modes are combined by a control system. This creates a hot, humid climate for especially intensive cooking. The temperature can be set to between **30 °C and 300 °C.**

Cooking modes: roasting, baking.

1

Preheat until heating indicator light goes out.

2

3 

4

Or work with the core temperature probe

3

4

Target **Actual**

Sample dishes

- **Mise en place**
  Roasting bones.

- **Starters**
  Quiche Lorraine, vegetable soufflés, flans, moussaka, lasagne, canneloni, paella, pasta bakes.

- **Main courses**
  Roasts (beef, veal, pork, lamb, poultry, game), roulades, stuffed vegetables (peppers, aubergines, cabbage, onions, kohlrabi), vegetable gratins (cauliflower), turkey legs, stuffed breast of veal, ham with noodles, leg of pork, belly of pork, various omelettes.

- **Side dishes**
  Potato gratin, frozen products (potato turnovers), baked potatoes

- **Desserts**
  Yeast dough.

- **Miscellaneous**
  Bread, rolls, pretzels (frozen dough portions)

Combi-Steam mode

Hints

- Do not place joints too close together to allow even cooking.
- Joints with rinds or larger joints should be steamed for approximately 1/3 of the cooking time.
- Collect condensate in a container (additional rail) and make the gravy by adding it to the lightly roasted bones.

- **Preparing sauces**
  - – Place a solid container on an additional rail.
  - – Add bones, mirepoix, seasonings to the container and roast under the meat.
  - – Add the collected stock
  - – Braise for the duration of cooking.
  - – Very concentrated stock for gravies/sauces.

- **Roulades**
  place in solid GN container, top with hot sauce and cover with container.

- **Baking**
  Bake yeast dough, flaky pastry, choux pastry on baking/roasting trays, Teflon trays can also be used.

Vario-Steam mode

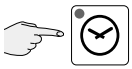
"Vario-steaming"

The steam generator produces hygienic fresh steam. Cabinet temperature can be variably set to between **30 °C and 99 °C**.

1

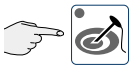
Preheat until heating indicator light goes out.

2

3 

4

Or work with the core temperature probe

3 

4

Target **Actual**

Sample dishes

- **Mise en place**
  Blanching bacon and ham, poaching fish garnishes, soups, sauces, stocks, fumets etc., pasteurising (semi-preserved foods)..

- **Starters**
  Galantines, fish dumplings, terrines, vacuum dishes.

- **Soup garnishes**
  Stuffing, dumplings, royale.

- **Main courses**
  Fish (salmon, sole etc.), cured ham, poultry, vacuum dishes (chicken breast, boiled beef, veal tongue), turkey fillet, chicken breasts, beef fillet, Vitello sausage.

- **Side dishes**
  Flans, vegetable casseroles, polenta.

- **Desserts**
  Fruit, crème caramel, cabinet pudding.

Vario-Steam mode

Hints

- **"Vario-Steam" cooking times**
  "Moist Heat" cooking times can be used as approximate values. As a general rule, the lower the cooking temperature the longer the cooking time.

- **Approximate cabinet temperatures "Vario-Steaming":**

Soup garnishes:	75 to 90 °C
Fish, shellfish and	65 to 90 °C
crustaceans:	65 to 90 °C
Meat and sausages	72 to 75 °C
Light meat	75 to 85 °C
Dark meat:	80 to 90 °C
Poultry:	80 °C
Desserts:	65 to 90 °C

- **Seasoning**
  Season with care. Low cooking temperatures intensify the characteristic taste of seasonings.
  When vacuum cooking be sure to add the exact amount of alcohol, fumet, essence or reduction!

- **Preserving fruit/vegetables**
  Cover the food with hot or cold liquid, depending on the firmness of the raw product and the type of preserve you want. The diameter of the preserving jars used should not exceed 100 mm. The cooking temperature will depend on the type of product (ripeness, size of pieces).
  Approximate temperature: 74 to 99 °C.

- **Advantages:**
  – Firm textured fillings.
  – Products have intenser taste and aroma.
  – Stock loss very low in fatty material.
  Approximate temperature: 72 to 80 °C.

- **Cook direct in the serving dish, e.g. fish.**

Finishing® mode

„Finishing®“

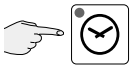
A combination of Moist Heat and Dry Heat modes. This produces the ideal cooking climate, by preventing the food drying out and also the formation of unwanted puddles. Cabinet temperature can be set to between **30 °C and 300 °C**.

1

Preheat to operating temperature

2

We recommend a cabinet temperature of between 120 °C and 140 °C, but the temperature can be varied for different products.

3 

4

As a rule finishing time is between 5 and 8 minutes for food arranged on plates – but finishing times will vary depending on the product, product temperature, number of plates, how full they are and the desired serving temperature.

Or work with the core temperature probe

3

4

Sample dishes

- **Starters**
  All types of spaghetti, canneloni, lasagne, vegetable dishes, cheese and herb noodles, quiche Lorraine, spring rolls, vegetarian cutlets, onion flans.

- **Main courses**
  All types of roast, meat loaves, bakes, ready-to-serve meals, roulades, stuffed vegetables.

- **Side dishes**
  Rice, potatoes, noodles, pasta, vegetables, soufflés, gratins.

- **Desserts**
  Strudel, hot fruit.

Finishing® mode

Hints

- **Finishing utensils**

  Porcelain plates, earthenware, glass, silverware, copper pans, stainless steel, aluminium dishes (brought in).

- **Banqueting service/tour groups**

  Reheat plates in the mobile plate rack.

  – Large quantities in next to no time.
  – Fast loading and unloading.
  – Shorter serving times, so high hourly throughput, rapid table change, more turnover.
  – For plates up to 31 cm in diameter

- Serving dishes are heated as well, storing heat until the food reaches the table.

- **Heat retaining hood:** for bridging short waiting periods or transporting food

- Arrange food evenly and not too closely on plates or dishes.

- Before arranging vegetables and side dishes for finishing mix with a little butter or fat.

- Sauces

  Usually added after finishing.

- Bulky items need more time to heat up.

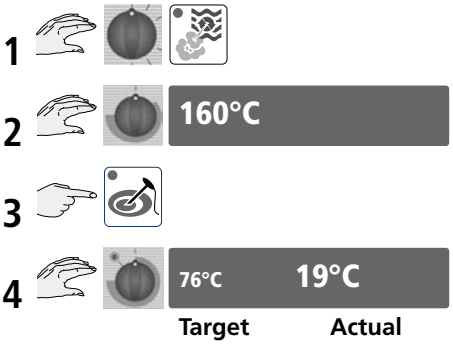
Working with the core temperature probe

The cooking process is regulated by measuring the core temperature of the food.

Clean the core temperature probe before use and ensure at anbient temperature before use.

Insert the core temperature probe into the thickest part of the food until the tip of the probe is at the centre of the food.

Can be selected for all control modes



The timer is not operational.

A buzzer sounds when the preselected temperature has been reached.

For your safety

- **Core temperature probe may be hot – wear oven gloves!**
- **Do not let core temperature probe hang out of the cabinet.**
- **Take the core temperature probe out of the food before removing a load**

Working with the core temperature probe

Hints

- When roasting meat for slicing set the core temperature approx. 5 °C lower, as the joint will continue to cook during the cool-down phase.
  For example: "Roasting", core temperature – cooking time ratio.

- To avoid holes (protein coagulation) in the product, cool the core temperature probe before use.
- You can change the set temperatures and cooking modes at any time.
- Core temperature measurement establishes the optimum serving temperature when Finishing®.

Approximate core temperature values

Beef	How well done	Core temperature
Fillet of beef	medium	55 - 58 °C
Sirloin	medium	55 - 60 °C
Beef rose	well done	85 - 90 °C
Roast beef	well done	80 - 85 °C
Aitchbone	well done	90 °C
Pork		
Leg	well done	75 °C
Leg	pale pink	65 - 68 °C
Saddle	pale pink	65 - 70 °C
Shoulder	well done	75 °C
Belly/ stuffed	well done	75 - 80 °C
Belly/	well done	80 - 85 °C
Knuckle, roasted	well done	80 - 85 °C
Knuckle, cured	well done	80 - 85 °C
Ham	very succulent	64 - 68 °C
Smoked pork chops (Buffet slices)		65 - 70 °C 55 - 60 °C
knuckle pickled	well done	75 - 80 °C
Cured rib of pork	well done	65 °C
Ham in breadcrumbs		65 - 68 °C

Working with the core temperature probe

Approximate core temperature values

Beef	How well done	Core temperature
Veal		
Saddle of veal	pale pink	58 - 65 °C
Leg of veal, and topside noisettes, fricandeau	well done	78 °C
Loin with kidneys	well done	75 - 80 °C
Roast veal/ shoulder	well done	75 - 80 °C
Breast of veal	well done	75 - 78 °C
Saddle of mutton	rare	65 - 70 °C
Saddle of mutton	well done	80 °C
Leg of mutton	rare	70 - 75 °C
Leg of mutton		82 - 85 °C

Lamb

When the meat is well done the core temperature is between 79 °C and 85 °C. The colour of the meat core is grey, slightly pale pink. The meat juices are clear.

Leg	rare	60 - 62 °C
Leg	well done	68 - 75 °C
Saddle	rare	54 - 58 °C
Saddle	well done	68 - 75 °C
Shoulder	well done	78 - 85 °C

Approximate core temperature values

Beef	How well done	Core temperature
Pies and similar		
Poultry		
Chicken	well done	85 °C
Goose/duck	well done	90 - 92 °C
Turkey	well done	80 - 85 °C
Pies		72 - 74 °C
Meat loaf		72 - 78 °C
Terrines		60 - 70 °C
Galantines		65 °C
Ballotines		65 °C
Foie gras		45 °C
Fish, e.g. salmon	medium	60 °C

Cool Down Function

You have been running your appliance at high temperature and you now want to carry on working at reduced cabinet temperature. Use the "Cool Down" function to cool the cabinet quickly and gently.

1 Close door..

2

3 Open door..

Note
Close cabinet doors before selecting "Cool Down".

Caution!

- **During "Cool down" the fan wheel is running when the door is open!**
- **Do not switch on "Cool down" function unless air baffle is correctly locked.**
- **Do not touch the fan wheel.**
- **Appliance must not be cooled with cold water.**

Cleaning

Cleaning procedure

For hygiene reasons and to prevent malfunctions it is essential to clean the Combi-Steamer every day at close of work.

Caution!

- **It is vital to wear the correct protective clothing (gloves, goggles and mask).**
- **Only use the hand spray piston made by the appliance manufacturer**
- **Never leave unused containers under pressure.**
- **Follow the safety instructions on the spray bottle and cleaner canister.**
- **Please make sure that the air baffle and grid shelf are properly inserted and locked before starting to clean.**

Here is what to do

1 Cool cabinet down **(below 60 °C)**.

2 Switch appliance off

3 Spray the cabinet and inside of the door, the door gasket, the area **behind the swivel air baffle** and both sides of the air baffle with RATIONAL Special Cleaner.

4 Lock the air baffle and grid shelf as directed.

5 Close cabinet door

6

7

Press core temperature button down for 10 seconds

8

Cleaning program is started

Once the cleaning time is up you will be asked to open the doors

9 When the cleaning program has finished running rinse the appliance down, including **behind the air baffle.**

10 Wipe cabinet and door gasket with a damp cloth, if necessary hinge back the inner pane and wipe it down as well.

11 Close cabinet doors.

To dry the cabinet "Hot Air" mode is automatically switched on for 10 minutes after the cabinet doors have been closed.

12

You exit the cleaning program by selecting a cooking mode.

Note

- Leave the appliance door slightly open if it is going to be idle for a prolonged period (e.g. overnight).
- To stop the high-quality chrome nickel steel corroding, your appliance must be cleaned regularly, even if only operated at "Moist Heat ".
- If there is heavy soiling let the residues soften for 10 minutes at "Moist Heat" before cleaning.
- Do not treat unit with acids or expose to acid fumes – this will damage the protective layer of stainless steel and may cause the finish to discolour.
- Do not use high pressure cleaners.
- Rinse the spray pistol nozzle and nozzle extension with clear water after every use.
- Rinse the cleaning bottle with warm water twice a week.
- A couple of drops of salad oil will clear any stiffness in the pump plunger.

Servicing – Steam generator descaling

Your appliance is equipped with the patented automatic Self Clean system. Automatic Self Clean significantly extends the period between descaling intervals. The steam generator in your appliance still needs regular descaling, depending on water hardness and use.

We recommend the following descaling intervals, based on 8 hours' steaming per day:

up to 18 °dH (to 3.2 mmol/litres)	at least 1x annually
up to 24 °dH (to 4.3 mmol/litres)	at least 2x annually
over 24 °dH (to 4.3 mmol/litres)	at least 3x annually

These recommended descaling intervals may vary from the approximate values given above, depending on the composition of the water (e.g. minerals).

Steam generator descaling

Caution!

- **The process described involves working with an aggressive chemical fluid - corrosive!**
- **To prevent damage to materials and health it is vital that you use:**
  protective clothing
  safety goggles
  protective gloves
  face mask
  the manufacturer's descaling accessories
- **Rinse descaling fluid spills thoroughly with water.**

1

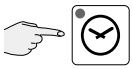
2 Close cabinet doors

3

Press core temperature button down for 10 seconds until the cabinet temperature display shows "CLEn"

4

Rotate cabinet temperature knob to the right until "CALC" appears on the display.

5 

The descaling process is started.

Note

If the cabinet temperature is over 40 °C when descaling commences, "Cool Down" starts automatically – see "Cool Down" display

The descaling process is continued if the cabinet temperature is below 40 °C at commencement or after "Cool Down".

Servicing – Steam generator descaling

Pumping out steam generator

When pumping out has finished the display shows:

You will be asked to top up with descaling fluid.

6 Open cabinet doors

7 Remove left grid shelf and air baffle from the cabinet.

8 Replace the left grid shelf to secure the descaler hose.

9 Screw the hose to the canister of descaling fluid.

10 Place the canister in the cabinet.

Servicing – Steam generator descaling

11 Guide the hose into the steam inlet up to the mark shown on the hose. Fasten the hose to the left grid shelf with the wire hook.

12 Very slowly fill with descaling fluid using the appliance manufacturer's hand pump.

Caution!

- **Descaling fluid reacts with lime and can foam over.**

Electric appliances

Model 6 x 1/1 GN	3,5 litres
Model 10 x 1/1 GN	6 litres
Model 6 x 2/1 GN	6 litres
Model 10 x 2/1 GN	8,5 litres
Model 20 x 1/1 GN	9 litres
Model 20 x 2/1 GN	11,5 litres

Gas appliances

Model 6 x 1/1 GN	4 litres
Model 10 x 1/1 GN	7 litres
Model 6 x 2/1 GN	6,5 litres
Model 10 x 2/1 GN	9 litres
Model 20 x 1/1 GN	8 litres
Model 20 x 2/1 GN	11 litres

Servicing – Steam generator descaling

13 Remove descaling accessories from cabinet (hand pump and canister).

14 Thoroughly rinse descaling fluid in cabinet and descaling accessories with water!

15 Correctly replace air baffle and left grid shelf in cabinet and lock properly.

16

Once 30 seconds have been indicated "door" appears on the display.

17 Please close cabinet doors.

The length of the descaling phase is displayed.

The steam generator is automatically rinsed several times, the appliance then automatically switches to Moist Heat.

"End" appears on the display when descaling is complete.

18

You exit the descaling process by selecting a cooking mode. Your appliance can now be used for cooking.

Note You need:

Descaler hand pump:

Part number 60.70.409

Descaler:
(10 litre canister – part number 6006.0110)

Servicing – Steam generator descaling
Aborting the descaling process

If necessary you can discontinue the descaling process.

Before filling with descaling fluid

1

please hold down the core temperature button for 10 seconds.

Your appliance can now be used for cooking.

After filling with descaling fluid

1

Switch appliance off and wait for 4 seconds

2

Switch appliance on

3

Descaling is discontinued if the
core temperature button is pressed
within 30 seconds.
If the core temperature button is not pressed within
30 seconds descaling will continue.

The steam generator is automatically drained
and thoroughly rinsed.
Your appliance can now be used for cooking.

Appliance settings – Celsius / Fahrenheit

Temperatures may be displayed in degrees Celsius or degrees Fahrenheit.

Changing the Celsius / Fahrenheit display

Simultaneously press "Clock" button and "Core temperature" button
and hold down for more than 10 seconds.

or

Inspections which can be carried out by experienced staff technicians

Caution!

- **Switch off the unit at the mains before opening the service doors and working on live components.**
- **Use only genuine spare parts made by the appliance manufacturer.**

Cleaning the air filter below the installation area

- Push filter cartridge to the left and lift out downwards.
- Clean the air filter in the dishwasher at least once a month and replace after drying.
- Air filters should be replaced at least twice a year.
- Insert filter cartridge correctly in the reverse order.

Changing the interior lighting

Replace the halogen bulb when the interior lighting fails.

First switch off the unit at the mains!

Cover the outlet inside the cabinet with a cloth and remove the 4 screws holding the glass retaining frame.

Remove the frame together with glass and gaskets.

Replace the halogen bulb with a genuine spare part (Spare Parts No. 3024.0201).

Also replace both gaskets.

External gasket frame: Spare Parts No. 40.00.093
Internal gasket frame: Spare Parts No. 40.00.094.

Please take care not to touch the bulb with your fingers.

Screw down the retaining frame with glass and gaskets and switch the unit on.

Replacing the door gasket

The door gasket comprises a vulcanised frame which slots into a guide on the cooking cabinet.

If a gasket needs changing, pull the old gasket out of the guide.

Clean any dirt from the guide rails.

When fitting the gasket make sure the rectangular part of the gasket is inserted properly into the frame.

It is advisable to dampen the retaining lips with soapy water when assembling.

Cooking cabinet gaskets

Model 6 x 1/1 ET No. 20.00.394
Model 6 x 2/1 ET No. 20.00.395
Model 10 x 1/1 ET No. 20.00.396
Model 10 x 2/1 ET No. 20.00.397
Model 20 x 1/1 ET No. 20.00.398
Model 20 x 2/1 ET No. 20.00.399

Draining the steam generator

You can drain the steam generator before moving it or to stop it freezing.

1

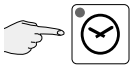
2 Close cabinet doors

3

Press core temperature button for 10 seconds until "CLEn" appears on cabinet temperature display

4

Rotate cabinet temperature knob to the right until "SC" appears on the display

5 

The steam generator is drained.

Appliance options

Draft diverter (gas appliances only)

Gas exhaust pipe diameter: 180 mm

Model 6x1/1 Art. No. 70.00.356
Model 6x2/1 Art. No. 70.00.359
Model 10x1/1 Art. No. 70.00.348
Model 10x2/1 Art. No. 70.00.349
Model 20x1/1 Art. No. 70.00.352
Model 20x2/1 Art. No. 70.00.343

UltraVent® condensation hood

The patented condensation technology used in the UltraVent® condensation hood totally absorbs steam in enclosed areas and discharges it through the integral exhaust system. Vapour is automatically fan-extracted, even when the cabinet door is open. Significantly reduces unpleasant cooking smells. No ventilation system needed. Easy to install and retrofit

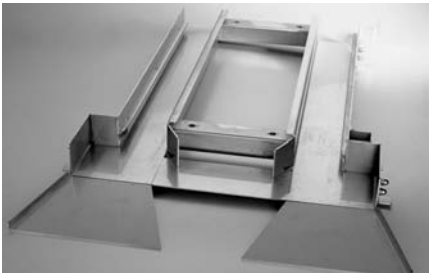
Model 6x1/1 /10x1/1 GN E Art. No. 60.70.366
Model 6x1/1 /10x1/1 GN GArt. No. 60.70.370
Model 6x2/1 /10x2/1 GN E Art. No. 60.70.366
Model 20x1/1 GN E Art. No. 60.70.374

Condensation extractor hood for table-top units

Vapour is automatically fan-extracted when the cabinet door is opened (no condensation engineering). Easy to install and retrofit.

Model 6x1/1 /10x1/1 GN E Art. No. 60.70.366
Model 6x1/1 /10x1/1 GN GArt. No. 60.70.364
Model 6x2/1 /10x2/1 GN E Art. No. 60.70.408

Access ramp for 20 x 1/1 and 20 x 2/1 GN



Levels out unevenness in the kitchen floor to a maximum of 20 mm in the direction of insertion.

Model 20x1/1 GN Art. No. 60.21.164
Model 20x2/1 GN Art. No. 60.22.086

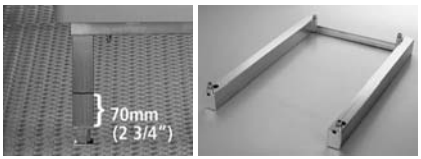
Fault indications

Heat shield for left side panel

Retrofitting a heat shield allows you to place a radiant heat source (e.g. grill) near the left side panel.

Model 6x1/1 **Art. No. 60.70.390**
Model 6x2/1 **Art. No. 60.70.392**
Model 10x1/1 **Art. No. 60.70.391**
Model 10x2/1 **Art. No. 60.70.393**
Model 20x1/1 **Art. No. 60.70.394**
Model 20x2/1 **Art. No. 60.70.395**

Appliance and mobile oven rack height extension (for floor models only)



Increases floor model ground clearance by 70 mm.

Appliance height extension

Model 20x1/1 GN **Art. No. 60.70.407**
Model 20x2/1 GN **Art. No. 60.70.407**

Mobile oven rack height extension

Model 20x1/1 GN **Art. No. 60.21.184**
Model 20x2/1 GN **Art. No. 60.22.184**

Combi-Duo

Model 6x1/1 on 6x1/1 or 10x1/1 GN (electric)
Model 6x2/1 on 6x2/1 or 10x2/1 GN (electric)
Model 6x1/1 on 6x1/1 GN (gas)
Model 6x2/1 on 6x2/1 GN (gas)

Standard
Top rack 1.60 m

Mobile
Top rack 1.65 m

With 150 mm height-adjustable feet
Top rack 1.77 m

Article numbers on request.

Fault indications

Any faults in your appliance
will be indicated on the display.

Faults in your appliance which allow you to carry on cooking can be suppressed by pressing the clock button.

Fault indication	Cause	Remedial action
E1	Appliance defective	
E2	Heating switched off for more than 2 minutes by an external energy optimising system.	Check energy optimisation system!
E3	Appliance defective	Notify Customer Service!
E4	Appliance defectivet	Notify Customer Service!
E5	Core temperature probe defective	Appliance can be operated without core temperature probe. Notify Customer Service!
E6	Appliance defective	Notify Customer Service!
E7	Appliance defective	Notify Customer Service!
E8	Appliance defective	Notify Customer Service!
E9	Appliance defective	Notify Customer Service!
E10	Appliance defective	Notify Customer Service!
E11	No control mode displayed after switching on	Notify Customer Service!
E13	Appliance defective	Notify Customer Service!
E14	Appliance defective	Notify Customer Service!
E15	Appliance defectivet	Notify Customer Service!
E16	Appliance defective	Notify Customer Service!
E17	Ambient temperature too low	Room temperature must exceed 5 °C!
E18	Appliance defectivet	Notify Customer Service!
E19	Appliance defective	Notify Customer Service!
E20	Appliance defective	Notify Customer Service!
E21	Appliance defective	Notify Customer Service!
E22	Appliance defective	Notify Customer Service!

Sample applications: beef and veal

Food	Hints	Suitable GN container/grid	load per container 1/1	2/1	pre haeting	
Fillet steak	season, brush with oil	CombiGrill®	12 pcs.	24 pcs.	300 °	
Rump steak	season, brush with oil do not flatten	CombiGrill®	10 pcs.	20 pcs.	300 °	
Sirloin	season, brush with oil	Grid	6 kg	12 kg		
Roast beef (Braised beef)	add mirepoix Ø 80–100 mm, cover CNS	90 - 150 mm unperforated CNS	6-8 kg	12-16 kg		
Beef roulades	season, add hot sauce, cover with 20 mm GN	65 mm unperforated	20-25 pcs.	40-50 pcs.		
Ox liver	cut into slices of even thickness	CombiGrill® or 20 mm granite	10 pcs.	20 pcs.	300 °	
Fillet of beef Wellington		20 mm granite	6-8 kg	12-16 kg		
Aitchbone	vacuum cooked, finish off in BT 106	Grid	6-8 kg	12-16 kg		
Fillet of veal	season, brush with oil	CombiGrill®	8 pcs.	16 pcs.	300 °	
Veal cutlets	season just before loading	CombiGrill®	10 pcs.	20 pcs.		
Roast veal		Grid and 65 mm CNS	8 kg	16 kg		
Knuckle of veal		Grid and 40 mm CNS	6 pcs.	12 pcs.		
Osso bucco	cover CNS	65 mm CNS	15 pcs.	30 pcs.		
Breast of veal		Grid and 65 mm CNS	1 pcs.	2 pcs.		
Ragout fin	fill hot into cocottes, top with Hollandaise sauce, brown	20 mm granit.	to Ø 10-12	to size pcs.		
Saddle of veal		Grid and 40 mm CNS	1 pcs.	2 pcs.		
Shoulder of veal		Grid and 40 mm CNS	6-8 kg	12-16 kg		

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

Cooking process			Approx. loading capacity				
1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
250 ° 7 Min.			36 pcs.	72 pcs.	60 pcs.	120 pcs.	240 pcs.
260 ° 8-10 Min.			60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
140 ° 10 Min.	160 ° KT 56 °		18 kg	36 pcs.	30 kg	60 kg	120 kg
130-140 ° 90-120 Min.			24 kg	50 pcs.	40 kg	80 kg	160 kg
130-140 ° 60-80 Min.			75 pcs.	150 pcs.	125 pcs.	250 pcs.	500 pcs.
250 ° 8-10 Min.			60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
175 ° KT 52 °			24 kg	50 kg	40 kg	80 kg	160 kg
85 ° 165 Min.			24 kg	50 kg	40 kg	80 kg	160 kg
180 ° KT 68 °			24 pcs.	50 pcs.	40 pcs.	80 pcs.	160 pcs.
240 ° 10-12 Min.			30 pcs.	60 pcs.	50 pcs.	100 pcs.	200 pcs.
30 Min.	140 ° 40 Min.	160 ° KT 75 °	24 kg	50 kg	40 kg	80 kg	160 kg
30 Min.	140 ° 50 Min.	170 ° KT 85 °	18 pcs.	36 pcs.	30 pcs.	60 pcs.	120 pcs.
130-140 ° ca. 90 Min.			45 pcs.	90 pcs.	75 pcs.	150 pcs.	300 pcs.
30 Min.	140 ° 50 Min.	160 ° KT 75 °	3 pcs.	6 pcs.	5 pcs.	10 pcs.	20 pcs.
250 ° 6-8 Min.			30 pcs.	60 pcs.	50 pcs.	100 pcs.	200 pcs.
160 ° 45 Min.	180 ° KT 70 °		2 pcs.	4 pcs.	3 pcs.	6 pcs.	12 pcs.
30 Min.	140 ° 50 Min.	170 ° KT 81 °	24 kg	50 kg	40 kg	80 kg	160 kg

Sample applications: pork, mutton and lamb

Food	Hints	Suitable GN container/grid	load per container 1/1	2/1	pre haeting	
Pork medallions	season, brush with oil approx. 70 to 80 g	CombiGrill®	20 pcs.	40 pcs.	300 °	
Escalopes	au naturel, brush with oil	CombiGrill®	10 pcs.	20 pcs.	300 °	
Pork chops (breaded)	browning fat,	Baking and roasting tray	8 pcs.	16 pcs.	300 °	
Pork carbonnade (braised)	marinate, add hot sauce	40 mm granite	10 pcs.	20 pcs.		
Burgers		Baking and roasting tray	15 pcs.	30 pcs.	300 °	
Meat balls		20 mm granite	45 pcs.	90 pcs.		
Saddle of pork		Grid and 40 mm CNS	8 kg	16 kg		
Roast pork Neck		Grid and 65 mm CNS	8 kg	16 kg		
Roast pork with crackling	(stuffed pork belly), make portion-sized cuts after step 1, then season	Grid and 40 mm CNS	5-7 kg	10-14 kg		
Smoked neck of pork	boned	Grid and 65 mm CNS	6-8 kg	12-16 kg		
Knuckle of pork	save stock, for use e.g. with sauerkraut	Grid and 65 mm CNS	7-9 pcs.	14-18 pcs.		
Leg of pork	make cuts after step 1, then season	Grid	6-8 pcs.	12-16 pcs.		
Ham in breadcrumbs	3/4 precook ham, then coat	Baking and roasting tray	ca. 6 kg	ca. 12 kg		
Mincemeat roast	use grid if in tins	20 mm granite	6 kg	12 kg		
Meat loaf	pack into aluminium trays	Grid	4-6 kg	8-12 kg		
Spare ribs	marinate for 12 h after steaming	Grid and 20 mm granite	3 kg	6 kg		
Pork shoulder	with rind, make cuts in rind after step 1	Grid and 40 mm CNS	8 kg	16 kg		

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product..

Cooking process			Approx. loading capacity				
1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
250 ° 8-10 Min.			60 pcs.	120 pcs.	120 pcs.	240 pcs.	480 pcs.
250 ° 12-15 Min.			60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
200-220 ° 15 Min.			48 pcs.	96 pcs.	80 pcs.	160 pcs.	320 pcs.
140-160 ° 50-60 Min.			60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
200-220 ° 15 Min.			90 pcs.	180 pcs.	150 pcs.	300 pcs.	600 pcs.
180 ° 15 Min.			135 pcs.	270 pcs.	225 pcs.	450 pcs.	900 pcs.
160 ° 30 Min.	180 ° KT 72 °		16 kg	32 kg	24 kg	48 kg	96 kg
30 Min.	160 ° 40 Min.	180 ° 15 Min.	24 kg	48 kg	40 kg	80 kg	160 kg
30 Min.	160 ° 50 Min.	220 ° KT 78 °	21 kg	42 kg	35 kg	70 kg	140 kg
80 ° KT 65-70 °			24 kg	48 kg	40 kg	80 kg	160 kg
100 ° KT 87 °			27 pcs.	52 pcs.	45 pcs.	90 pcs.	180 pcs.
30 Min.	160 ° 60 Min.	220 ° KT 85 °	24 pcs.	48 pcs.	40 pcs.	80 pcs.	160 pcs.
170 ° 20 Min.	170 ° KT 72 °		12 kg	24 kg	18 kg	36 kg	72 kg
	160 ° 40 Min.		18 kg	36 kg	30 kg	60 kg	120 kg
130 ° KT 70 °			18 kg	36 kg	30 kg	60 kg	120 kg
30 Min.	vor haeting 300 °	190 ° 15 Min.	9 kg	18 kg	15 kg	30 kg	60 kg
30 Min.	160 ° 50 Min.	220 ° KT 75 °C	16 kg	32 kg	24 kg	48 kg	96 kg

Sample applications: sausages and frozen food

Food	Hints	Suitable GN container/grid	load per container 1/1	2/1	pre haeting	
Home-made sausage	fill casing evenly, can be cooked hanging	Grid	ca. 30 pcs.	ca. 60 pcs.		
Bavarian sausage to heat	2 meat hooks, iron bar and grid to secure	Grid	80 pcs.	160 pcs.		
Sausages, to reheat		40 mm CNS	30 pcs.	60 pcs.		
Stuffing	ffor mise en place cover with foil	20 mm CNS	50 pcs.	100 pcs.		
Live dumplings	lightly grease container	20 mm CNS	30 pcs.	60 pcs.		
Semi-preserved foods	filling weight 200 g	20 mm CNS	40 pcs.	80 pcs.		
Sausages in jars (250 g)	test jars to make sure they can withstand heating and cooling	20 mm CNS	40 pcs.	80 pcs.		
Frozen convenience foods:						
Chicken drumsticks- and thighs	prefried	20 mm granite	30 pcs.	60 pcs.	300 °	
Cordon bleu	prefried	20 mm granite	8 pcs.	16 pcs.	300 °	
Fish fingers	breaded	Baking and roasting tray	50 pcs.	100 pcs.	300 °	
Quiche Lorraine	Pre-baked in ø 8 cm aluminium tins 2 cm high, preheat 300 °C	20 mm CNS or Perforated aluminium	24 pcs.	48 pcs.	300 °	
Lasagne	precooked	CNS 65 mm	10 port.	20 port.		
Pizza	precooked	Perforated aluminium	2 pcs.	4 pcs.	300 °	

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

Cooking process			Approx. loading capacity				
1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
77 ° KT 72 °			180 pcs.	360 pcs.	300 pcs.	600 pcs.	1200 pcs.
80 ° KT 75 °			160 pcs.	420 pcs.	400 pcs.	800 pcs.	1600 pcs.
80 ° KT 75 °			180 pcs.	360 pcs.	300 pcs.	600 pcs.	1200 pcs.
80 ° 10-15 Min.			300 pcs.	600 pcs.	500 pcs.	1000 pcs.	2000 pcs.
100 ° 15 Min.			180 pcs.	360 pcs.	300 pcs.	600 pcs.	1200 pcs.
100 ° 40 Min.			120 pcs.	240 pcs.	200 pcs.	400 pcs.	800 pcs.
100 ° 50 Min.			120 pcs.	240 pcs.	200 pcs.	400 pcs.	800 pcs.
180 ° 20 Min.			180 pcs.		300 pcs.	600 pcs.	1200 pcs.
180 ° 25 Min.			48 pcs.		80 pcs.	160 pcs.	320 pcs.
200-220 ° 20 Min.			300 pcs.		500 pcs.	1000 pcs.	2000 pcs.
200 ° 20 Min.			144 pcs.	288 pcs.	450 pcs.	900 pcs.	1800 pcs.
140 ° 30-40 Min.			30 port.	60 port.	50 port.	100 port.	200 port.
200 ° 10-12 Min.			12 pcs.	24 pcs.	20 pcs.	40 pcs.	80 pcs.

Sample applications: Game, poultry and pies

Food	Hints	Suitable GN container/grid	load per container ⅛	⅔	pre haeting
Saddle of venison, rare	lard, skewer	20 mm granit.e	3 pcs.	4 pcs.	250 °
Leg of venison	debone, season, bard, tie	CNS 40 mm	5-6 kg	10-12 kg	
Haunch of venison	lard, marinate	CNS 40 mm	6 kg	12 kg	
Saddle of hare rare	lard, season	20 mm granite	6-8 pcs.	12-16 pcs.	250 °
Larded leg of hare	marinate, season, add hot sauce, cover with CNS container	CNS 65 mm	12 pcs.	24 pcs.	
Roast venison	braised	CNS 65 mm	8 kg	16 kg	
Pheasant	lard, bard, season,	20 mm granite	6-8 pcs.	12-16 pcs.	220 °
Wild duck	season, lard	20 mm granite	3 pcs.	6 pcs.	
Turkey	stuff if required	CNS 40 mm	2 pcs.	4 pcs.	
Goose	stuff if required, season	CNS 40 mm	2 pcs.	4 pcs.	
Chicken (whole) vertical/horizontal	rub seasoning in well		6 pcs.	12 pcs.	
Chicken (1/2)		Grid and CNS 20 mm	8 pcs.	16 pcs.	
Chicken legs	arrange legs in tin, place on grids	Grid and CNS 20 mm	10-12 pcs.	20-24 pcs.	300 °
Baked liver pâté	cover pie tin carefully	Grid and CNS 20 mm	6 kg	12 kg	

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

	Cooking process			Approx. loading capacity				
	1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
	220 ° 25 Min.			6 pcs.	8 pcs.	10 pcs.	20 pcs.	40 pcs.
	140-160 ° 60-70 Min.			18 kg	32 kg	30 kg	60 kg	120 kg
	140-150 ° 80-100 Min.			18 kg	36 kg	30 kg	60 kg	120 kg
	200-220 ° 15-20 Min.			24 pcs.	48 pcs.	40 pcs.	80 pcs.	160 pcs.
	140-160 ° 50 Min.			36 pcs.	72 pcs.	60 pcs.	120 pcs.	240 pcs.
	130 ° 90-120 Min.			24 kg	48 kg	40 kg	80 kg	160 kg
	160-180 ° 25-30 Min.			18 pcs.	36 pcs.	30 pcs.	60 pcs.	120 pcs.
	140-160 ° 60-70 Min.			9 pcs.	18 pcs.	15 pcs.	30 pcs.	60 pcs.
	130 ° 90 Min.	150 ° KT 72 °		4 pcs.	8 pcs.	6 pcs.	12 pcs.	24 pcs.
	140 80 Min.	180 ° 25 Min.		4 pcs.	8 pcs.	6 pcs.	12 pcs.	24 pcs.
	160 ° 20 Min.	180 ° 20 Min.		18 pcs.	36 pcs.	30 pcs.	60 pcs.	120 pcs.
	160 ° 20 Min.	180 ° 10 Min.		24 pcs.	48 pcs.	40 pcs.	80 pcs.	160 pcs.
	220 ° 18 Min.			72 pcs.	144 pcs.	120 pcs.	240 pcs.	480 pcs.
	130 ° 40 Min.			18 kg	36 kg	30 kg	60 kg	120 kg

Sample applications: Fish, shellfish and crustaceans

Food	Hints	Suitable GN container/grid	load per container ⅓	⅔	pre haeting	
Salmon (whole)	Salmon, put abdomen flap outside	CNS 20 mm	1 pcs.	2 pcs.		
Salmon trout fillets, Salmon steaks	in serving dish, add fumet or wine	CNS 20 mm	20 pcs. 15 pcs.	40 pcs. 30 pcs.		
Salmon soufflé	darioles, cocottes, timbales	Grid	15-20 pcs.	30-40 pcs.		
Halibut (portions)	salt, pepper, chopped herbs	CNS 20 mm	15 port.	30 port.		
Sole roulades	can also be stuffed	CNS 20 mm	30 pcs.	60 pcs.		
Plaice	pale side up	20 mm granite	4-5 pcs.	8-10 pcs.	300 °	
Pan fried trout	season, brush with oil	20 mm granite	8-10 pcs.	16-20 pcs.	300 °	
Blue trout	season stock with vinegar, put abdomen flap to the side	CNS 40 mm	8-10 pcs.	16-20 pcs.		
Perch ((on vegetable julienne)	first blanch julienne	CNS 20 mm	10-12 pcs.	20-24 pcs.		
Mussels	add wine, vegetable julienne, etc.	CNS 40 or 65 mm	1-2 kg	2-4 kg		
Fish dumplings		CNS 20 mm	50 pcs.	100 pcs.		
Fish terrine		Grid	3 pcs.	6 pcs.		
Frozen convenience foods:						
Fish, gratinated in aluminium foil, multiple portions		CNS 20 mm	12 pcs.	24 pcs.	300 °	
Prefried, breaded perch		CNS 20 mm	15 pcs.	30 pcs.	300 °	
Cod fillets (prefried)		CNS 20 mm	18 pcs.	36 pcs.	300 °	

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

Cooking process			Approx. loading capacity				
1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
75 ° KT 67 °			2 pcs.	4 pcs.	3 pcs.	6 pcs.	12 pcs.
75 ° 6-8 Min. 80 ° 8-10 Min.			120 pcs. 90 pcs.	240 pcs. 180 pcs.	200 pcs. 150 pcs.	400 pcs. 300 pcs.	800 pcs. 600 pcs.
75 ° 15 Min.			60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
75 ° 12 Min.			90 port.	180 port.	150 port.	300 port.	600 port.
75 ° 10 Min.			180 pcs.	360 pcs.	300 pcs.	600 pcs.	1200 pcs.
250 ° 13 Min.			30 pcs.	60 pcs.	50 pcs.	100 pcs.	200 pcs.
250 ° 15 Min.			30 pcs.	60 pcs.	50 pcs.	100 pcs.	200 pcs.
100 ° 15-18 Min.			30 pcs.	60 pcs.	50 pcs.	100 pcs.	200 pcs.
85 ° 12 Min.			36 pcs.	72 pcs.	60 pcs.	120 pcs.	240 pcs.
95 ° 10 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
75 ° 8-10 Min.			300 pcs.	600 pcs.	500 pcs.	1000 pcs.	2000 pcs.
75 ° KT 67 °			9 pcs.	18 pcs.	15 pcs.	30 pcs.	60 pcs.
180 ° 30 Min.			72 pcs.	144 pcs.	120 pcs.	240 pcs.	480 pcs.
160 ° 20 Min.			90 pcs.	180 pcs.	150 pcs.	300 pcs.	600 pcs.
175 ° 20 Min.			108 pcs.	216 pcs.	180 pcs.	360 pcs.	720 pcs.

Sample applications: vegetables, side dishes

Food	Hints	Suitable GN container/grid	load per container ⅛	⅔	pre haeting	
Broccoli	frozen (fresh, perforated container, plunge in iced water)	CNS 65 mm Perforated	5 kg	10 kg		
Cauliflower	cut rosettes	CNS 65 mm Perforated	ca. 4 heads	ca. 8 heads		
Brussels sprouts	frozen, season when frozen, butter just before serving	CNS 65 mm Perforated	5 kg	10 kg		
Spinach	fresh	CNS 65 mm Perforated	2 kg	4 kg		
Kohlrabi		CNS 65 mm Perforated	5 kg	10 kg		
Carrots parisienne		CNS 65 mm Perforated	5 kg	10 kg		
Petits pois		CNS 65 mm Perforated	5 kg	10 kg		
Asparagus	cook in stock/water	65 mm unperforated	2–3 kg	4–6 kg		
Tomatoes	blanch for e.g. tomatoes concassé, salad	20 mm Perforated	28 pcs.	56 pcs.		
Green beans	frozen, whole or cut, fresh blanch, plunge into iced water	CNS 65 mm Perforated	5 kg	10 kg		
Mushrooms	sprinkle with lemon, add white wine if desired	65 mm unperforated	2 kg	4 kg		
Savoy cabbage (blanch)	cut out stalk, plunge fresh cabbage into iced water	65 mm perforated	2–3 heads	4–6 heads		
Peppers (stuffed)	use only red and yellow	65 mm unperforated	20–25 pcs.	40–50 pcs.		
Cauliflower au gratin	every 2nd rack	Grid CNS 20 mm	30 port.	60 port.	300 °	
Vegetable platter (Serving dish)	pre-prepared, butter /fat just before serving	Grid or CNS 20 mm	4 pcs.	8 pcs.		
Baked vegetables		CNS 65 mm granite	30 port.	60 port.		
Stuffed cabbage rolls	blanch leaves well, (frozen, preheat 300 °C)	65 mm perforated CNS 65 mm	25 pcs.	50 pcs.		
Peasant-style omelette	fill approx. 1- to 2 cm below edge	CNS 40 mm	30 port.	60 port.		
Soaking cereals	preparing cold and leaving to soak shortens cooking time	CNS 65 mm granite	2 kg	4 kg		
Vegetarian bake	note soaking time for grains	CNS 40 mm	30 port.	60 port.		
Moussaka	fill 2 cm under top edge	CNS 65 mm	30 port.	60 port.		

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

Cooking process			Approx. loading capacity				
1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
100 ° 15 Min.			15 kg	30 kg	25 kg	50 kg	100 kg
100 ° 18 Min.			12 heads	24 heads	20 heads	40 heads	80 heads
100 ° 15 Min.			15 kg	30 kg	25 kg	50 kg	100 kg
100 ° 8 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
100 ° 15–18 Min.			15 kg	30 kg	25 kg	50 kg	100 kg
100 ° 15–18 Min.			15 kg	30 kg	25 kg	50 kg	100 kg
100 ° 15–18 Min.			15 kg	30 kg	25 kg	50 kg	100 kg
100 ° 15–20 Min.			9 kg	18 kg	15 kg	30 kg	60 kg
100 ° 1–2 Min.			225 pcs.	336 pcs.	280 pcs.	560 pcs.	1120 pcs.
100 ° 15–18 Min.			15 kg	30 pcs.	25 kg	50 kg	100 kg
100 ° 10–12 Min.			6 kg	12kg	10 kg	20 kg	40 kg
100 ° 6–8 Min.			9 heads	18 heads	15 heads	30 heads	60 heads
160–180 ° 45 Min.			75 pcs.	125 pcs.	125 pcs.	250 pcs.	500 pcs.
250 ° 8–10 Min.			90 port.	180 port.	150 port.	300 port.	600 port.
110–130 ° 8–10 Min.			12 pcs.	24 pcs.	20 pcs.	40 pcs.	80 pcs.
140 ° 45 Min.	150 ° 10 Min.		90 port.	180 pcs.	150 port.	300 port.	600 port.
140 ° 40 Min.	160 ° 10 Min.		75 pcs.	150 pcs.	125 pcs.	250 pcs.	500 pcs.
140 ° 35 Min.	160 ° 10 Min.		90 port.	180 pcs.	150 port.	300 port.	600 port.
100 ° 30 Min.			12 kg	24 kg	20 kg	40 kg	80 kg
140 ° 35 Min.	160 ° 10 Min.		90 port.	180 port.	150 port.	300 port.	600 port.
15 Min.	140 ° 40 Min.	160 5 Min.	90 port.	180 port.	150 port.	300 port.	600 port.

Sample applications: Eggs, side dishes

Food	Hints	Suitable GN container/grid	load per container 1/1	2/1	pre haeting	
Eggs (hard boiled)	time from glass misting (soft 7 min/ / hard 15 min.)	65 mm perforated	60-100 pcs.	120-200 pcs.		
Oeufs en cocotte (poached eggs)	load can be covered with foil or GN containers	CNS 20 mm	20 pcs.	40 pcs.		
Royale	in tins or GN containers	65 mm unperforated	4 Litre	8 Litre		
Royale in skins	tie to grids and suspend	Grid or 20 mm CNS				
Egg soufflés	bring milk to the boil, then blend in eggs, cover with foil	65 mm CNS	4 Litre	8 Litre		
Scrambled egg	beat eggs, whisk in milk or cream, cover	65 mm unperforated	4 Litre	8 Litre		
Quiche	prebake base	20 mm granite	10 pcs.	20 pcs.		
Boiled potatoes	cut into quarters, salt, mix well	100–150 perforated	8-14 kg	16-28 kg		
Jacket potatoes	large potatoes can also be cooked on the grid as Idaho potatoes	100–150 perforated	6-12 kg	14-24 kg		
Dumplings	lightly oil CNS container	20 mm CNS	30 pcs.	60 pcs.		
Roast potatoes	cooked au point, watch bulk	40 mm granite	2 kg	4 kg		
Potatoes in foil	wrap potatoes in foil, lay on bed of salt	20 mm CNS	20 pcs.	40 pcs.		
Potato gratin	make sure slices are of equal thickness,	40 mm granite	30 port.	60 port.		
Potatoes Macaire	frozen product	20 mm granite	40 pcs.	80 pcs.		
Vacuum cooked Potatoes	quartered, shaped	Grid	4-4,5 kg	8-9 kg		
Rice	long grain, stock – water: ratio 2:1, soaking shortens cooking time	65 mm unperforated CNS	2 kg	4 kg		
Wild rice	ratio 3:1, shortened cooking time	65 mm unperforated CNS	2 kg	4 kg		
Rice pudding	3 parts milk, 1 part round grain rice, cinnamon stick, sugar, vanilla	65 mm unperforated CNS	2 kg	4 kg		
Pasta (reheating)	spaghetti, noodles, tagliatelle etc.	65 mm unperforated CNS	2 kg	4 kg		
Canneloni	cover evenly with sauce	65 mm unperforated	30 port.	60 port.		
Lasagne		65 mm unperforated CNS	20 port.	40 port.		
Pasta soufflé	blend egg mixture in well	40 mm or 65 mm granite	20 port.	40 port.		

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

Cooking process			Approx. loading capacity				
1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
100 ° 12-15 Min.			300 pcs.	600 pcs.	500 pcs.	1000 pcs.	2000 pcs.
90 ° 6-8 Min.			60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
85 ° 30 Min.			12 Litre	24 Litre	20 Litre	40 Litre	80 Litre
85 ° 30 Min.			ca. 15 Litre	30 Litre	30 Litre	60 Litre	20 Litre
90 ° 20 Min.			12 Litre	24 Litre	20 Litre	40 Litre	80 Litre
100 ° 12 Min.			12 Litre	24 Litre	20 Litre	40 Litre	80 Litre
150 ° 10 Min.	175 ° 10 Min.		60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
100 ° 30-35 Min.			24 kg	48 kg	42 kg	80-90 kg	160-180 kg
100-130 ° 45-50 Min.			18 kg	36 kg	36 kg	60-72 kg	120-154 kg
100 ° 25 Min.			180 pcs.	360 pcs.	300 pcs.	600 pcs.	1200 pcs.
230 ° 15 Min.			12 kg	24 kg	20 kg	40 kg	80 kg
180 ° 45-50 Min.			120 pcs.	240 pcs.	200 pcs.	400 pcs.	800 pcs.
150 ° 40 Min.	180 ° 10 Min.		90 port.	180 port.	150 port.	300 port.	600 port.
200-220 ° 15-18 Min.			240 pcs.	480 pcs.	400 pcs.	800 pcs.	1600 pcs.
100 ° 30 Min.			20-25 kg	40-50kg	40-50 kg	90 kg	180 kg
100 ° 25 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
100 ° 45 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
90-100 ° 35-40 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
100 ° 10 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
150 ° 30-35 Min.			90 port.	180 port.	150 port.	300 port.	600 port.
150 ° 40 Min.	170 ° 10 Min.		60 port.	120 port.	100 port.	200 port.	400 port.
150 ° 35 Min.	170 ° 5 Min.		60 port.	120 port.	100 port.	200 port.	400 port.

Leistungsbeispiele Backwaren, Brot, Brötchen, Dessert 1

Food	Hints	Suitable GN container/grid	load per container 1/1	2/1	pre haeting	
Apple strudel (Strudel dough	brush with milk, egg or sugar-water	Baking and roasting tray or perforated aluminium	2 pcs.	4 pcs.		
Frozen apple turnovers	brush with liaison if desired preheat	Baking and roasting tray 20 mm perforated alu.	10 pcs.	20 pcs.		
Sponge base (Swiss rolls)		20 mm granite	1 kg	2 kg		
Sponge base Ring	Ø 26 cm, every 2nd rack	Baking and roasting tray	2 shapes	4 shapes		
Flaky pastry, pies, fleurons	brush carefully with egg,	Baking and roasting tray or perforated aluminium	Dez 15 pcs.	24-30 pcs.		
Flaky pastry tartlets - fresh	every 2nd rack	Baking and roasting tray or perforated aluminium	acc. to size	acc. to size		
Puff pastries filled (with cheese etc.)	evtl. mit Ei bestreichen	Baking and roasting tray or perforated aluminiumt	12 pcs.	24 pcs.		
Tray cakes	every 2nd rack	20 mm or 40 mm	30 port.	60 port.		
Christmas stollen	line tins well	Baking and roasting tray	2 kg	4 kg		
Croissants – fresh	cook "Vario-Steam" 34 °C,	Baking and roasting tray or perforated aluminium	12 pcs.	24 pcs.		
Compote	cut fruit up evenly, leave to firm after steaming	65 mm unperforated	30 port.	60 port.		
Fruit garnishes	Cut or shape apples, pears etc.	20 mm	30 pcs.	60 pcs.		
Hot fruit	frozen fruit, raspberries, strawberries, blackberries, in serving dish	Grid	15 pcs.	30 pcs.		
Fruit conserves (jars)	Ø 10–12 cm, e.g. pears, filling volume 1 litre	Grid or 20 mm	10 pcs.	20 pcs.		
Cabinet pudding	line tins (foil or baking paper)	Grid	4 pcs.	8 pcs.		
Crème caramel (glasses)	darioles, cocottes, timbales etc.	Grid or 20 mm	40 pcs.	80 pcs.		

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

Cooking process			Approx. loading capacity				
1st Step	2nd Step	3rd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
170 ° 40-50 Min.			6 pcs.	12 pcs.	10 pcs.	20 pcs.	40 pcs.
170 ° 20 Min.			60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
180 ° 12 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
170-180 ° 30-40 Min.			6 shapes	12 shapes	10 shapes	20 shapes	40 shapes
185 ° 7 Min.	185 ° 10 Min.		45 pcs.	90 pcs.	75 pcs.	150 pcs.	300 pcs.
170 ° 7 Min.	170 ° 10 Min.						
170 ° 20-25 Min.			72 pcs.	144 pcs.	120 pcs.	240 pcs.	480 pcs.
160 ° 35-40 Min.			90 port.	180 port.	150 port.	300 port.	600 port.
160 ° 55 Min.			6 kg	12 kg	10 kg	20 kg	40 kg
170 ° 15-20 Min.			36 pcs.	72 pcs.	60 pcs.	120 pcs.	240 pcs.
100 ° 20-25 Min.			90 port.	180 port.	150 port.	300 port.	600 port.
100 ° 6-8 Min.			180 pcs.	360 pcs.	300 pcs.	600 pcs.	1200 pcs.
80-90 ° 4-6 Min.			90 pcs.	180 pcs.	150 pcs.	300 pcs.	600 pcs.
100 ° 50-60 Min.			30 pcs.	60 pcs.	50 pcs.	100 pcs.	200 pcs.
90 ° 45 Min.			12 pcs.	24 pcs.	20 pcs.	40 pcs.	80 pcs.
85 ° 35 Min.			120 pcs.	240 pcs.	200 pcs.	400 pcs.	800 pcs.

Sample applications: Pasty, bread, rolls, desserts 2

Food	Hints	Suitable GN container/grid	Load per container 1/1	2/1	pre haeting	
Yeast cakes	every 2nd rack	20 mm granite or Baking and roasting tray	2 kg	4 kg		
Yeast plaits 500 g		20 mm granite or perforated aluminium	2 pcs.	4 pcs.		
Cheesecake	every 2nd rack	Ø 16 cm Ring	40 port.	80 port.		
Marble cake	grease tins carefully, cut top after baking for 10 minutes	Grid or Baking and roasting tray	4 shapes	8 shapes		
Mixed-grain bread		20 mm granite or perforated aluminium	3 pcs.	6 pcs.		
Short pastry and piped biscuits	make sure thickness is even	20 mm granite Baking and roasting tray	24 pcs.	48 pcs.		
Danish pastries	baking temperature depends on filling	Baking and roasting tray or perforated aluminium	10 pcs.	20 pcs.		
Madeira-type cake	tins on grids	Grid	4 pcs.	8 pcs.		
Savarin	butter and flour tins	Grid	10 pcs.	20 pcs.		
Stollen approx. 200 g	light mix	Baking and roasting tray	4 heads	8 heads		
Streusel cake	spread crumble evenly	20 mm granite	40 port.	80 port.		
Viennese-style sponge	spread mix evenly Ø 26 cm flan ring	20 mm granite or Baking and roasting tray				
Rolls	frozen	Perforated aluminium Baking and roasting tray	15 pcs.	30 pcs.		
White bread tin (700 g)	every 2nd rack	20 mm granite Baking and roasting tray	4 pcs.	8 pcs.		
Crisp up baguettes, rolls, day goods	frozen portions, approx. 45-50 g	Baking and roasting tray or perforated aluminium	10-12 pcs.	20-24 pcs.		
Toast	butter lightly if desired	Grid	15-18 pcs.	30-36 pcs.		
Vacuum cooked fruit	add wine, liqueur etc.	Grid	4 kg	8 kg		
Cinnamon whirls	cook "Variosteam" 30 °C	20 mm granite or. Baking and roasting tray	12 pcs.	24 pcs.		
Plum cake	Yeast dough approx. 5mm thick/prove	20 mm granite or. Baking and roasting tray	30 port.	60 port.		

CT - core temperature.

Please note that quantities given always refer to a full load. In certain instances reducing the load can improve food quality. Foods are natural products, cooking times and temperatures are intended as guides and should, if necessary, be adjusted to suit the individual product.

		Cooking process		Approx. loading capacity				
		1st Step	2nd Step	6x1/1	6x2/1	10x1/1	10x2/1 20x1/1	20x2/1
		175 ° 5 Min.	175 ° 25 Min.	6 kg	12 kg	10 kg	20 kg	40 kg
		175 ° 5 Min.	175 ° 30 Min.	6 pcs.	12 pcs.	10 pcs.	20 pcs.	40 pcs.
		160 ° 50-60 Min.		120 port.	240 port.	200 port.	400 port.	800 port.
		160 ° 45 Min.		12 shapes	24 shapes	20 shapes	40 shapes	80 shapes
		160-180 ° 75-85 Min.		9 pcs.	18 pcs.	15 pcs.	30 pcs.	60 pcs.
		175 ° 12 Min.		144 pcs.	288 pcs.	240 pcs.	480 pcs.	960 pcs.
		170-180 ° 16-18 Min.		60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
		160-180 ° 40-60 Min.		12 pcs.	24 pcs.	20 pcs.	40 pcs.	80 pcs.
		190 ° 10-12 Min.		30 pcs.	60 pcs.	50 pcs.	100 pcs.	200 pcs.
		160 ° 50-70 Min.		12 heads	24 heads	20 heads	40 heads	80 heads
		160-180 ° 30-35 Min.		120 port.	240 port.	200 port.	400 port.	800 port.
		160 ° 35 Min.						
		140 ° 5 Min.	170 ° 10 Min.	45 pcs.	90 pcs.	75 pcs.	150 pcs.	300 pcs.
		140 ° 5 Min.	170 ° 30-35 Min.	12 pcs.	24 pcs.	20 pcs.	40 pcs.	80 pcs.
		160-180 ° 10 Min.		60 pcs.	120 pcs.	100 pcs.	200 pcs.	400 pcs.
		250 ° 5 Min.		108 pcs.	216 pcs.	180 pcs.	360 pcs.	720 pcs.
		80-100 ° 20-30 Min.		24 kg	48 kg	40 kg	80 kg	160 kg
		175 ° 15 Min.		36 pcs.	72 pcs.	60 pcs.	120 pcs.	240 pcs.
		160 ° 35 Min.		90 port.	180 port.	150 port.	300 port.	600 port.

UK

RATIONAL International

EUROPE

RATIONAL Großküchentechnik
Iglinger Straße 62
86899 Landsberg a. Lech/GERMANY
Tel.: +49 1805 998899
Fax: +49 8191 327231
E-mail: grosskuechentechnik@rational-online.de
www.rational-online.de

RATIONAL Belgium nv
Zandvoortstraat 10 Bus 5
2800 Mechelen/Belgium
Tel: +32 15 285500
Fax: +32 15 285505
E-mail: info@rational.be

RATIONAL Ibérica Cooking Systems S.L.
Ctra. de Hospitalet, 147-149
Cityparc / Edif. Paris D
08940 Cornellá (Barcelona)/ SPAIN
Tel: +34 93 4751750
Fax: +34 93 4751757
E-mail: rational@rational-iberica.com
www.rational-iberica.com

RATIONAL Italia S.r.l.
Via Venier 21
30020 Marcon (VE)/ITALY
Tel: +39 041 5951909
Fax: +39 041 5951845
E-mail: info@rationalitalia.it
www.rationalitalia.it

RATIONAL Nederland
Grootkeukentechniek BV
Twentepoort West 7
7609 RD Almelo/THE NETHERLANDS
Tel: +31 546 546000
Fax: +31 546 546099
E-mail: info@rational.nl
www.rational.nl

RATIONAL Polska
ul. Trylogii 2/16 pok. 41
01-982 Warszawa/POLAND
Tel: +48 22 8649326
Fax: +48 22 8649328
E-mail: rational@medianet.pl

EUROPE

Представительство РАЦИОНАЛЬ АГ
121170, г.Москва,
Кутузовский пр-т, д.36, стр.3
Тел: + 7 095 5043483
Факс: +7 095 9807230
Эл. почта: info@rational-russland.com

RATIONAL Scandinavia AB
Skiffervägen 20
22478 Lund/SWEDEN
Tel: +46 46 235370
Fax: +46 46 235379
E-mail: info@rational.nu
www.rationalgmbh.se

RATIONAL Schweiz
Rainweg 8
4710 Balsthal/SWITZERLAND
Tel: +41 62 7973444
Fax: +41 62 7973445
E-mail: cpc@rationalag.ch
www.rationalag.ch

RATIONAL Slowenien SLORATIONAL d.o.o.
Iršičeva 15
2380 Slovenj Gradec / Slovenija
Tel: +386 2 8821900
Fax: +386 2 8821901
E-mail: slorational@siol.net

RATIONAL UK
Unit 4 Titan Court, Laporte Way
Portenay Business Park
Luton, Bedfordshire, LU 4 8EF
GREAT BRITAIN
Tel: +44 1582 480388
Fax: +44 1582 485001
E-mail: rational@rational-uk.co.uk
www.rational-uk.com

RATIONAL AG
Iglinger Straße 62
86899 Landsberg a. Lech
Tel: +49 8191 3270
Fax: +49 8191 21735
E-mail: info@rational-ag.com
www.rational-ag.com

NORTH AMERICA

RATIONAL Canada
2420 Meadowpine Blvd., Suite 103
Mississauga, Ontario L5N 6S2/CANADA
Tel: 905 567 5777
Fax: 905 567 2977
E-mail: postmaster@rationalcanada.com
www.rationalcanada.com

RATIONAL USA
455 E. State Parkway, Suite 101
Schaumburg, IL, 60173/USA
Tel: (888) 320-7274
Fax: (847) 755-9584
E-mail: info@rationalusa.com
www.rationalusa.com

ASIA

株式会社 ラショナル・ジャパン
〒112-0004
東京都文京区後楽2丁目2番22号
住友不動産飯田橋ビル2号館
ウィング
Tel: +81 3 3812 6222
Fax: +81 3 3812 6288
メールアドレス: info@rationaljapan.co.jp
ホームページ: www.rationaljapan.co.jp

RATIONAL Korea
라치오날코리아 (주)
서울 강남구 청담동 53-8 은성빌딩
한국 - Republic of Korea
전화: +82-2-545-4599
팩스: +82-2-3443-5131
E-mail: info@rationalkorea.co.kr
www.rationalkorea.co.kr

RATIONAL 上海
上海市肇嘉浜路798号
坤阳国际商务广场1305室
邮政编码200030 中国
电话: +86 21 64737473
传真: +86 21 64730197
电邮: shanghai.office@rational-china.com
www.rational-china.com